

- \* SWBAT differentiate between static and dynamic equilibrium
- \* SWBAT apply the equilibrium rule.

Sep 6-2:31 PM

SECA Physics  
Wednesday 18 September 2013

# Welcome!!!

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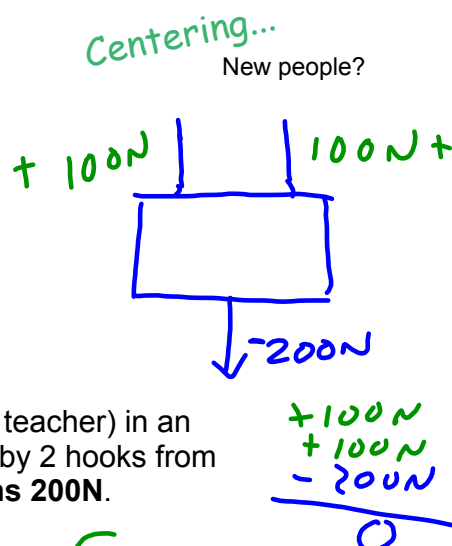
- \* Pick up:
  - small slip of paper (for later)
  - instruction sheet

## Opening Activity:

Imagine that a framed picture of Liam (the English teacher) in an embarrassing position is hanging centered evenly by 2 hooks from the ceiling of the front hallway. **The picture weighs 200N.**

What is the upward force in each string?

$$F_{up} = F_{DN}$$



Sep 7-7:04 AM

# EQUILIBRIUM $\Rightarrow$ BALANCED OR STEADY

## Big Idea of the Day:

Kinds of Equilibrium???

You are in the car in the middle of nowhere on a long smooth straight open road. The cruise control is set at 65 mph.

Are you in equilibrium? **YES**

You have a book flat on your lap. Could you balance a deck of cards on end on the book while the car was moving? **YES**

Sep 21-2:13 PM

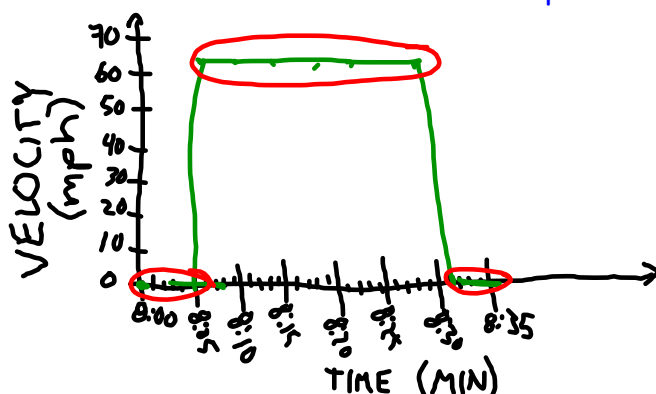
## Dynamic Equilibrium $\rightarrow$ MOVING

An object can have all of its forces balanced (positives and negatives add to zero) and be **MOVING!**

If:

- it's not speeding up / slowing down
- it's not turning

Car with cruise control at 65 mph



When could you keep the cards balanced?

WHEN VELOCITY IS CONSTANT  
 $\Rightarrow$  WHEN GRAPH IS "FLAT"

Sep 21-2:37 PM

Let's try it out on the computer!

OAS: NBT

Catchy Physics Phrases

Sep 16-2:23 PM

### Daily 3 Questions

- \* Every day except test/project days
- \* 3 Questions on the topics of the day
- \* Main source of daily points
- \* I am happy to give credit when I have no concerns about someone giving or getting help with the answers.

Your can't get your points if you don't have your **NAME!!!**

| Name | Period |
|------|--------|
| 1.   |        |
| 2.   |        |
| 3.   |        |

Sep 9-7:32 AM

1. If a picture weighing 200 N is hanging evenly from two hooks, what is the upward force in each string?

100N each

2. True or False: Something can be in equilibrium (positive and negative forces cancel out to zero) while it is moving.

3. Have you been checked off for your lab steps?

NO

Sep 14-7:28 AM

Sep 18-7:51 AM